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THE STONE CIRCLES OF SCOTLAND.

BY A. L. LEWIS, F.C.A., Treasurer of the Anthropological Institute.

[PRESENTED MARCH 13TH, 1900.]

FROM the times of Aubrey and Stukeley to the present day the tendency, whether intentional or unconscious, of almost all writers upon stone circles has been to dwell upon their points of resemblance and to minimise the differences which exist between them, and, consequently, to suggest a uniformity of origin, date, and purpose, which is perhaps less probable than has been supposed. Even when differences have been recognised there has not been, so far as I know, any attempt made to classify or localise them; such an attempt I now propose to make. Thirteen years ago I was able, as the result of a visit to the district round Aberdeen, to show (in a paper read before this Institute on the 8th March, 1887, and printed in the *Journal* of August of that year), that most of the circles there had special features, which were not to be found in any other locality, and to which I will presently refer more fully. On this occasion I hope, as the result of a more extensive tour made last autumn, to show that the circles in other parts of Scotland have peculiarities which distinguish them both from the circles round Aberdeen and from those of England and Wales, and which, even in Scotland itself, are confined to special localities.

Stone circles are still much more plentiful in certain parts of Scotland than in the rest of Britain, but many that formerly existed have been destroyed, and for the most part without any satisfactory description of them having been preserved.

Sir James Young Simpson, as long ago as 1861, said, "Almost all the primæval stone circles and cromlechs which existed in the middle and southern districts of Scotland have been cast down and removed. . . . In the beginning of the eighteenth century Sir Robert Sibbald states that near the Kipps cromlech was a circle of stones with a large stone or two in the middle, and, he adds, 'many such may be seen all over the country.' They have all disappeared, and but lately the stones of the Kipps circle have been themselves removed and broken up, to build, apparently, some neighbouring field walls, though there was abundance of stones in the vicinity equally well suited for the purpose."¹

Notwithstanding this lamentable destruction, there are still so many circles left that I have been unable to visit the greater part of them, but I have been able to supplement my own observations from many excellent and evidently trust-

¹ Anniversary address to the Society of Antiquaries of Scotland, January, 1861. (*Proceedings*, vol. iv, p. 48.)

worthy accounts contained in the *Proceedings of the Society of Antiquaries of Scotland*, and other publications, and propose, with the aid of the lantern, to take you on what I may call a "circular" tour round the coast of Scotland, beginning at the extreme south-west.

In the counties of Wigtown, Kirkcudbright, and Dumfries there are still several circles, some of which are more than 100 feet in diameter, and which consist of rather irregular single rings, formed partly of shapeless boulders, and partly of more pillar-like stones, which are seldom more than 5 feet high. Many circles of apparently similar construction are also spoken of in Perthshire, and some in Argyll and Sutherland, but none of these of which I have seen any account can be compared for size or grandeur to the larger English circles, or for regularity and beauty to the smaller circles of Cornwall and Devon.¹

In the island of Arran, in the estuary of the Clyde, close to the road, and about half-way between Brodick and Lamlash, is a circle, which is, I think, very much like those I have been speaking of, but much smaller, being only 21 feet in diameter; it now consists of three granite blocks and some fragments; 63 feet from its circumference is a stone 4 feet high, of coarse conglomerate, in a direction 35° east of south, and, as this stone is just seven radii of the circle from its centre, it may have been specially connected with it. Dr. Bryce dug into this circle in 1861, and found in the centre a small kist, or rather a hole cut in the underlying sandstone, which contained black earth and fragments of bone, while in the stony soil above he found a flint implement and three other flint fragments; he dug on both sides of the outlying stone, but found nothing. Twelve miles away, on the other side of the island, is a more important group, which I was unable to visit, but concerning which Dr. Bryce has given full particulars.² There were in 1860 the remains of eight circles very near to each other, varying in diameter from 7 to 21 yards, five being of sandstone and three of granite, the largest stone being 18 feet high. One of these was a double concentric circle, and four of them contained kists, all pointing a little east of north, with hand-made urns, rude flint arrow-heads, and fragments of bone, with black earth, which, however, was not formed from animal substance. In one kist there was a skull with some long bones, and in another a piece of a bronze pin; in the other circles nothing was found, but, with one exception, it would not be safe to say that no burial had ever existed in them, yet the one exception may be taken to show that burial was not the universal primary object. Dr. Bryce remarks casually, "The granite peaks of the Goatfell group were defined against the deep azure of the north-eastern sky with wondrous distinctness," a circumstance to which I have

¹ (Miss) C. MacLagan, *Hill Forts, Stone Circles, etc., of Scotland*, 1875. *Proc. Soc. Antiq. Scot.*:—Vol. xxix (1895), p. 301, "Stone Circles of the Stewartry of Kirkcudbright," by F. R. Coles; vol. xxxi (1897), p. 281, "On the 'Girdlestanes,' etc., Dumfriesshire," by D. Christison M.D.; p. 90, "Notes on a Stone Circle in Wigtownshire," by F. R. Coles; *Proc. Soc. Antiq. Lond.*, 1885, vol. x, p. 303 (Rev. W. C. Lukis).

² *Proc. Soc. Antiq. Scot.*, vol. iv, p. 499, "An Account of Excavations within the Stone Circles of Arran," by James Bryce, M.A., LL.D., etc.

had occasion to draw your attention in connection with other circles. Goatfell, I may mention, is 2,866 feet above sea level. Dr. Bryce says that the nearest deposits of flint are in Antrim.

There are three fine standing stones at the entrance to Glen Rosa, on the north side of Brodick, and there is another 10 feet high by the side of the road on the way to them. Dr. Bryce also says that several stone circles were known to have existed in other parts of Arran, but that in 1860 there were none remaining but those I have mentioned.

It can hardly be doubted that there have been, even if there are not still, circles in some of the other islands off this coast, but the only two which I have found mentioned were:—One at Kirkabost, Strathaird, Skye, which, it is said, originally consisted of large upright stones, very few of which remained in 1863¹; and one about ten miles from Rothesay (Bute), near Kingarth.² In what the inhabitants of these islands sometimes describe as the adjacent island of Great Britain, there are said to have been, not far from the Crinan canal, cairns, some with kists and some with chambers, but both with circular retaining walls; and on the moors and throughout the hills, several small circles of stones containing burials, but not kists.³ Near Taradin or Tardain, also, I think, in Argyllshire, Mr. Logan, in 1832, reported the existence of a circle of large stones with a covered way leading into it; this was probably the remains of a chambered cairn with a retaining wall,⁴ and not what is understood by a circle.

Proceeding northward, we arrive at the island of Lewis, on the west side of which there is a very interesting collection of circles. The first we come to from Stornoway, after a journey of fourteen miles along a road bordered principally by peat and puddle, with hills in the background, is a concentric double oval. The outer ring now consists of eleven stones, and its diameters are about 50 and 40 feet; the inner ring has only four stones remaining, and its diameters are about 27 and 20 feet. The tallest stone, which forms part of the inner ring, is 6 feet high. This circle is not marked on the one-inch ordnance map, and I have not found any record of excavation being made or anything found in it.

About half a mile farther across the moor may be seen the remains of another oval, of which five stones, of about the same size as those just mentioned, are standing, and three are fallen; both these rings were formerly almost buried in peat, on removing which, in 1858, there were found in this one a small cairn or heap of stones, and four little holes dug in the ground, surrounded by stone borders and paved with smooth round sea-shore pebbles brought from some distance, and in these holes bones and charcoal were found.⁵

¹ *Proc. Soc. Antiq. Scot.*, vol. v, p. 14.

² Nelson's *Tourists' Guide to the River Clyde*.

³ *Journal of the Ethnological Society*, vol. ii, New Series, p. 146, Rev. J. R. Mapleton on "Prehistoric Remains in Neighbourhood of Crinan Canal." Dr. Munro, *Prehistoric Scotland*, 1899, p. 285.

⁴ *Archæologia*, vol. xxv, p. 614.

⁵ *Proc. Soc. Antiq. Scot.*, vol. iii, p. 203, 16th February, 1859, Right Hon. Edward

Two other circles are marked on the ordnance map, from one to two miles south from these, and another on Great Bernera, about four miles west across an inlet of the sea, but I was unable to visit any of these, and have no information about them except a vague statement that they are like the others.

The monuments which I have described so far, with the exception of a few in Argyllshire, are all of one sort, consisting of single or double open rings of stones, both circles and stones generally of moderate size, and usually having burials of some sort in the enclosed area, though, as some have no traces of interment, that would seem not to have been their only purpose. This kind of circle, which extends also into Perthshire, I propose to call the "Western Scottish type."

The chief object of pilgrimage in the island of Lewis is, however, the Callernish circle which is about a mile beyond the two I first mentioned, and plainly visible from them. Various plans and measurements have been given of this circle and its unique appendages, but the best are those by Sir Henry James.¹ The circle consists of thirteen stones, from 12 to 15 feet high, with one in the centre, 17 feet high; they are from 3 to 5 feet in width, but not more than 1 foot thick, and these proportions and their number and proximity to each other produce a rather bewildering effect when close to them. A line of five stones standing and some fallen extends southward from the circle, and lines of four stones from its east and west sides respectively, while from the north-north-east two lines, one of nine and the other of ten stones, form a sort of avenue, from which, however, there is no special entrance into the circle; there are two other stones outside the circle, one on each side of the south line. Inside, occupying all the space between the central stone and the east side of the ring, is a slight tumulus, with three cells, forming a sort of cruciform sepulchre, about 10 feet long and 2 feet deep; it is most probable that this is quite a secondary structure, though it may, notwithstanding its shape, have been made some time before the introduction of Christianity, yet long after the rest of the circle. All these stones were buried in a growth of 5 or 6 feet of peat, which was cleared away in 1857-8, but the protection afforded by it from weathering and lichen is still clearly visible on all the stones. Minute fragments of human bone, apparently burnt, and a black unctuous substance were found in the cruciform tomb when the peat was cleared away from it.² Mr. Callender has said with regard to this circle, "That its position was chosen and laid down from astronomical observation can easily be demonstrated by visiting the spot on a clear night, when it will be found that, by bringing the upper part of the single line of stones extending to the south to bear

Ellice, M.P. *Archæologia Scotica*, vol. i, p. 283 (published 1792), Colin McKenzie on "Antiquities in Lewis."

¹ *Plans and Photographs of Stonehenge and of Turusuchan in the Island of Lewis, etc., etc.*, by Col. Sir Henry James, R.E., F.R.S., etc., Director-General of the Ordnance Survey, 1867, 4to. (Ordnance Survey, price 14s. 6d.) Dr. T. A. Wise published some plans and remarks on this and some other monuments in the *Journal of the British Archaeological Association* in 1877 (vol. xxxiii, p. 158), but they abound in errors.

² Sir J. Matheson in the *Proc. Soc. Antiq. Scot.*, 12th April, 1858, vol. iii, p. 111.

upon the top of the large stone in the centre of the circle, the apex of that stone coincides exactly with the pole-star. This is more readily done from the south line, being on sloping ground, so that looking along the line upwards to the higher level of the centre stone is very much the same as taking an observation through the incline of a telescope."¹ The bearing of that line is, according to Sir H. James's plan, about 3° east of north; the northern and longest lines are not, however, quite in the same direction, being about 10° and 15° east of north from the centre; these directions, 10° and 15° east of north, are specially marked in some of the Cornish circles by prominent hilltops.²

According to Sir Henry James's plan, the inside diameters of the circle are 42 feet from north to south, and 36 feet from east to west; the greatest length of the whole structure from north to south is 408 feet, and the extreme width from east to west is 130 feet. From the centre of the circle to the end of the northern line is 294 feet. It does not appear to have occurred to Sir Henry James or to anyone else, but it is nevertheless the fact, that 294 is exactly seven times 42, so that from the centre of the circle to the end of the avenue is exactly seven of the long diameters of the circle. The northern lines of stones are both irregular in their spacing, and the stones in the lines are not opposite to each other. Mr. Callender points out, with regard to the double row, that although "it has the appearance of an avenue it does not seem to have been intended to serve as a mode of access to the circle. If such had been the case the upright stones in front would naturally have been omitted, whereas they stand facing the approach without any deviation from the regular order." Sir Henry James says, "The row of stones on the east side of those which form the shaft of the cross is so arranged as to form an avenue leading up to the grave." This row starts from a stone outside the circle 48° north of east, which is about the midsummer sun rising point, and I am inclined to think that this and the stone at the other end of this line are in their original positions, but that the other stones between these two, which are all rather small, were set up later, and were perhaps removed from the other line, which they would just about suffice to complete. It seems likely, then, that this monument was first constructed in the form of a cross, with a circle at the intersection, and with a single line of stones for each limb, for practices of which the observation of the pole-star and of the sun formed a prominent part; that after a time a tomb was constructed in the interior of the circle, and some of the stones from the northern arm of the cross were removed to make a second line, forming with the first an avenue to the tomb; and that, after a further interval of time, the place was so entirely deserted that no less than 5 feet of peat grew up over the tomb and around the stones. This circle, like many of those in England, has direct reference to the sun and stars and proportional measurements, and belongs, therefore, like them, to a class which I will call "sun and star circles."

¹ H. Callender in the *Proc. Soc. Antiq. Scot.*, 9th March, 1857, vol. ii, p. 380.

² "Stone Circles of Britain," by A. L. Lewis, in *Archæological Journal*, vol. xlix, p. 136 (1892).

The inhabitants are said to have no traditions now about these circles, but Martin, writing about 1700, said the natives told him that the circle last described was a place of worship in the time of heathenism, and that the chief druid or priest stood near the big stone in the centre, from whence he addressed himself to the surrounding people. This could hardly have been learnt from Aubrey, to whom the origin of the "druidic" theory is sometimes attributed, and Sir Henry James points out that "the preservation of such names as 'Clach an Druidean' (the Stone of the Druids) in this island would seem to prove their presence in it at some possibly not very remote period of our history."

Proceeding on our journey round the coast, we arrive at Stenness in Orkney, landing either at Stromness, which is five miles from it to the west, or at Kirkwall, which is ten miles from it to the east. Here, on a wind-swept peninsula, between the Lochs of Harray and Stenness, is the circle known as the Ring of Brogar. The best plans and description of this and the adjacent stones are those of Lieutenant Thomas, R.N., published in *Archæologia* (vol. xxxiv, pp. 88–136, 1851), and I am happy to say that there seems to be little if any alteration in these remains since his survey, made in 1848.

Passing a ditch, 29 feet wide and 6 feet deep, by one of the two causeways which exist, we stand on a circular plateau, 366 feet in diameter, upon which are the remains of a single circle, 340 feet in diameter, of large stones, which, according to Lieutenant Thomas, whose figures I am quoting, were originally sixty in number.¹ Thirteen of these, from 6 to 14 feet high, are still standing, eleven, of similar dimensions, are lying flat, and twelve are represented by stumps and fragments, leaving twenty-four vacant places. Across the Loch of Harray three hills of no great elevation may be seen, between 35° and 65° north of east, covering the midsummer sun rising point, as in many circles in England and as at Callernish also, and answering to the old Egyptian "mount of glory, where the sun rises and is saluted by the powers of the east."²

Looking from the centre of the circle in the direction of the bridge of Brogar, about 30° south of east, we see a large stone by the bridge, called the "Watchstone," which is 18 feet high, and over and beyond it in a direct line another, called the "Barnstone," 15 feet high. A little to the left of this line are two standing stones, which do not seem to have any connection with the others; and a little to the right of it, but beyond the bridge and the "Watchstone," are two standing stones, 15 and 17 feet high, and one fallen, 19 feet long; these and a stump are all that remain of the Ring of Stenness, which Lieutenant Thomas thought originally consisted (if, indeed, it were ever complete) of twelve stones, in a circle 104 feet in diameter, standing on a low mound, encircled by a trench and slight embankment.³ In addition to these three stones there are upon the mound the

¹ Mr. Spence thinks 52 only.

² *Book of the Dead*, see *Proceedings of Society of Biblical Archaeology*, vol. xviii, p. 8, and vol. xix, p. 145. Sir P. Le Page Renouf (President) on the *Book of the Dead*.

³ Lieutenant Thomas considered that this mound, 162 feet in diameter, had been raised about 3 feet above the natural surface and encircled at a distance of 36 feet by a bank 3 feet high

capstone and two supporting stones of a dolmen, which, I think, may very likely have been made out of what was once a stone forming part of the circle, for their present position does not seem to be either a usual or a likely one as part of the original scheme. Somewhere on the north side of this circle was the celebrated holed stone called the Stone of Odin, which was destroyed at the beginning of the nineteenth century. Lieutenant Thomas was told by someone who had known it in his childhood that it was on the north-west of the circle, but Dr. Henry, writing to the Society of Antiquaries of Scotland, in 1784, when it was still standing, says positively it was to the north-east. It seems probable, therefore, that this circle was quite independent of the larger Ring of Brogar, and had the Odin Stone as an outlyer to the north-east, like the stone called the "Friar's Heel" at Stonehenge and others elsewhere.¹ Leaving the Stenness circles, we go in the direction of the road from Kirkwall to Stromness, close to which we find the "Barnstone" before mentioned, and again verify the fact that a line from it to the "Watchstone" will, if prolonged, strike the centre of the Brogar circle. We then proceed north-easterly to the celebrated chambered tumulus of Maeshowe, and sitting down at the further end of the chamber and looking down the long passage to the outside see the "Barnstone," and find that it is in a direct line down the passage. Mr. Magnus Spence,² who, as I understand, first drew attention to these alignments, has, by personal observation, found that the line from the "Barnstone" to the centre of Maeshowe is that of the midsummer sunrise. This raises the question whether Maeshowe were always a closed tomb, or whether it may not have been a sanctuary of some kind, or a dwelling for the priests.³

and 36 feet wide at the base, the bottom of the apparent trench being, in fact, the natural surface. Mr. Spence thinks there may have been thirteen stones in this circle.

¹ Dr. Henry's communication was not printed at the time, but is quoted by Dr. Hibbert in his paper on "The Tongs of Orkney and Shetland" in vol. iii. of *Archæologia Scotica*.

² *Standing Stones and Maeshowe of Stenness*, by Magnus Spence (Gardner, Paisley and London).

³ The three most notable chambered tumuli in Europe are at Gavrinis in Brittany, New Grange in Ireland, and Maeshowe in Orkney, and as I have been in all of them, I may perhaps be allowed briefly to compare them. The gallery and chamber at Gavrinis are of what may be called the ordinary type, upright slabs forming the walls, and horizontal slabs the floor and roof; its chief distinction is the incised markings with which it is so profusely ornamented. The New Grange monument has an irregularly shaped gallery and chamber, the lower part of the walls of which are of upright stones, while the roof is formed by courses of stones projecting inwards till they meet, and there are three recesses, one on each of three sides of the chamber, which, with the entrance gallery on the fourth side, give it a cruciform plan; there are also concentric and other ornamental patterns inscribed on some of the stones. At Maeshowe there is a long gallery opening into a chamber of an almost square shape, which also has three recesses, making with the gallery an apparent cross, but the walls are all of horizontal courses, except a large upright at each corner of the chamber, and while the roof of the chamber is as it were domed by diminishing courses like that of New Grange, the roof of the gallery is made of flat slabs like that at Gavrinis. The recesses are different from those of New Grange, and much more resemble the sleeping places made in the thickness of the walls of some of the beehive houses in the island of Lewis (Lieutenant Harris, R.N., in *Proc. Soc. Antiq. Scot.*, 12th May, 1858, vol. iii, p. 297), except that they would be much more convenient dormitories. A very

According to Mr. Spence, the distances between Maeshowe and the Brogar circle and its outlying stones are carefully proportioned, and the lines between them are all of astronomical import, thus :—

From Maeshowe to the “Barnhouse” stone or “Barnstone” is 42 or 43 chains, in the line of the setting sun ten days before the winter solstice.

From the “Barnhouse” stone to the “Watchstone” is also 42 chains, or according to the 25-inch ordnance map 43 chains, and from the “Watchstone” to the Brogar circle is 63 chains farther in the same line, which is that of the setting sun at the Beltane festival in May, or, looking from the circle to the “Barnstone,” that of the rising sun ten days before the winter solstice, when, as Mr. Spence thinks, the winter feast may have begun.

From Maeshowe to the “Watchstone” is also 63 chains, in the line of the equinoctial sun rising and settings.

With regard to these alignments, I can in a very great measure confirm Mr. Spence's statements from my own observation, but the measurements were far too long for me to attempt to verify ; we may, however, safely place the Brogar circle, as well as the Callernish monument, in the list of “sun and star circles.”

I should mention that there are several tumuli round about the ring of Brogar, in which burials have been found, but that none have been found within the circles. There is also to the north-west of the Ring of Brogar an earthen ring, without standing stones, called the Ring of Bukan.

Leaving Stenness, we go down the east coast of Scotland as far as Inverness, where we find ourselves in the midst of a number of circles of quite a different type from any we have yet seen. Perhaps the greatest assemblage of these was at Clava, on the banks of the Nairn, seven miles from Inverness, and one mile past the battlefield of Culloden. Half a century ago there were here, according to Mr. Cosmo Innes (*Proc. Soc. Antiq. Scot.*, 18th January, 1858, vol. iii, p. 46), eight cairns, each surrounded by a circle of large stones, besides many smaller remains ; since that time there have been much building and cultivation, attended by the usual results. On crossing the river from Culloden, the first stone seen is one of considerable size, standing alone in a field, and said to be the last survivor of a circle and cairn. Following the road, we soon find ourselves in the midst of a

similar arrangement of three chambers opening from a central one is described by Captain Thomas R.N. (*Proc. Soc. Antiq. Scot.*, 16th March, 1859, vol. iii, p. 225), as existing in a beehive house in the island of St. Kilda, which was inhabited at least as lately as the summer of 1697. There is no record of any interment having been found in Maeshowe, and there is no reason why it might not have been—at all events in the first place—a beehive dwelling of comparatively palatial dimensions, even if it were (of which there is no evidence) converted into a tomb at a later period. The only ornamentations on the walls are a number of runic inscriptions, and a little figure of a dragon cut by Scandinavians, who knew no more about the origin of the structure than we do. Another difference between New Grange and Maeshowe is that the former was surrounded by a retaining wall of uncemented masonry, outside which is an earthen bank 5 or 6 feet high, outside which, again, was a circle of upright stones, of which the largest remaining is about 7 feet high. Neither at Maeshowe nor at Gavr Inis are there any traces of adjuncts of this kind.

circle, through which it runs, and which is one of a group of three, the principal, if not the only, remains now to be found. This circle is a little over 100 feet in diameter, and consisted of twelve stones, from 4 to 7 feet high, the highest being at the south-west; in the middle of this circle is another, about 50 feet in diameter, of small blocks, 2 or 3 feet high and broad, close together, which formed a retaining wall for a cairn of large loose stones. From this wall, nearly opposite

FIG. 1.

FIG. 2.

Ground-plan (fig. 1) and section (fig. 2) of South-west Cairn and Circle, Clava, lent by the Society of Antiquaries of Scotland from the illustrations to Mr. Fraser's "Descriptive Notes on the Stone Circles of Strathnairn and the Neighbourhood of Inverness."

the highest stone of the outer circle, a passage leads inwards to another close circle $12\frac{1}{2}$ feet in diameter, which is in fact the lower part of a chamber, formerly domed and covered with the loose stones which have fallen or been thrown down in a confused heap, in which the second circle or retaining wall is nearly buried.

These circles are surrounded by a mass of furze, which may conceal many fallen stones and smaller remains, but the interior of the circles is kept clear, and a path cut through the furze leads to another group in a north-easterly direction. Mr. Jolly,¹ writing in 1882, said it consisted of an inner chamber, 20 feet in diameter; a retaining wall for the cairn, 50 feet in diameter; and a surrounding circle, 100 feet in diameter, of eleven stones. Of these latter I found only six, which are from 4 to 8 feet high, the highest being at the south-west, as in the first circle described, but others may be fallen and covered by the furze. Even in 1882 the two inner circles had almost gone, and last year I only found a shapeless heap of stones where they had been. Mr. Fraser,² writing in 1884, found no trace of a passage or of a wall rising from the inner circle, and as the diameter Mr. Jolly assigned to that circle is unusually large for a chamber, the chamber, if there were one, may have been a smaller construction inside it and destroyed long ago.

Following the path still farther to the north-east, we come to the third of these circles, which is almost identical in size and pattern with the first, there being now ten stones in the outer circle, from 3 to 9 feet high, of which the highest is, as in the other cases, at the south-west, nearly opposite the passage leading from the second circle or outer wall of the cairn to the inner circle or chamber, the walls of which latter are still 7 or 8 feet high. In one of these chambers, but whether on or under its floor I do not know, as accounts seem to differ, two small urns with calcined bones were found early in the nineteenth century.

Some of the stones of the outer circles at Clava have fallen and been re-erected, not always exactly in their original position. Cup-markings have been found on one or two stones of each set of circles.

One of the best circles near Inverness is that of Inches, or Leys, two or three miles up the old Edinburgh road. There are the remains of three concentric circles and a passage, which few who have previously seen the Clava group could doubt were also part of a chamber, cairn, and outer circle. All the small stones which formed the cairn and the upper part of the chamber and most of even the larger lower stones of the latter are gone; but the intermediate ring which formed the retaining wall of the cairn and the outer circle are almost complete, and the lower stones of the passage are nearly all there. The diameters of the circles are about a fifth less than those of the Clava group, but the stones of the

¹ On "Cup-marked Stones in the Neighbourhood of Inverness" in *Proc. Soc. Antiq. Scot.*, vol. xvi, p. 303.

² "Descriptive Notes on the Stone Circles of Strathmairn and Neighbourhood of Inverness," by James Fraser, C.E., *Proc. Soc. Antiq. Scot.*, vol. xviii, p. 341.

outer ring are, if anything, a trifle larger, and the largest, as at Clava, is at the south-west, nearly opposite the opening of the passage. A gold torque, which was found either in or near these circles, was exhibited to the Society of Antiquaries of Scotland in 1824.

FIG. 3.

FIG. 4

Ground-plan (fig. 3) and section (fig. 4) of Leys Circle, near Inverness, lent by the Society of Antiquaries of Scotland from the illustrations to Mr. Fraser's "Descriptive Notes on the Stone Circles of Strathnairn and the Neighbourhood of Inverness."

I have a list, compiled from various sources,¹ of more than forty circles round about Inverness, but of a dozen or more of them little or nothing is left to show their original plan, and others are too imperfect to say much about. Nine, at least,

¹ *Proc. Soc. Antiq. Scot.* :—Vol. iii, p. 46, Cosmo Innes on "Stone Circles of Clava, etc.," 18th January, 1858; vol. xvi, p. 314, W. Jolly on "Stones with Cup-markings near Inverness"; vol. xvi, p. 477, Angus J. Beaton on "Antiquities of Black Isle, Ross-shire"; vol. xviii, p. 328, J. Fraser, M.I.C.E., "Descriptive Notes on the Stone Circles of Strathnairn and Neighbourhood of Inverness."

Archæologia Scotica :—Vol. iii, p. 211, G. Anderson on "Circles and Cairns near Inverness"; Rev. C. L. Smith, M.A., "Excursions through the Highlands and Isles of Scotland in 1835 and 1836." M. Pocard Kerviler in *Journal de la Société Polymathique*, 1869.

See list of circles at end of paper.

were evidently of the construction I have described, and at least as many others show traces of three concentric rings but have no certain indication of any passages. It is clear that we have in the district of which Inverness is the centre a number of circles of a special kind, consisting of an outer ring of pillar stones encircling a cairn with an interior chamber and passage leading to it, or it may have been in some cases a small chamber or kist without a passage, and this kind of circle I propose to call the Inverness type. In these circles the largest pillar stone is usually at or about the south-west, and the entrance to the passage, when there is one, is between south and south-west.

Although these circles were most numerous in the neighbourhood of Inverness, there seem to have been two or three in Caithness, where, however, the majority of burials appear not to have been in circles at all.¹ One is mentioned in the Orkneys, but as it was covered by a lake, it may very likely have been the remains of a crannoge.² Another is described as standing at the east end of Quendale Bay, Shetland,³ but this has not, and perhaps never had, an outer ring of pillar stones, and the same may apparently be said of some already mentioned in Argyllshire; these may therefore be only remains of chambered cairns without surrounding circles. There may perhaps be one or two in Perthshire, but all that are situated outside the Inverness district are more or less accessible from it by water. A circle at Gunnerkeld in Westmorland is the only one in England that bears any resemblance to the Inverness type⁴ and even this presents many differences.

Continuing our journey round the coast, we arrive at Aberdeen, where, as I mentioned at the commencement of this paper, we are in the midst of a group of circles of yet another description, which I propose to call the Aberdeen type. They resemble the Inverness circles in having an outer ring of pillar stones encircling in most cases—not a large cairn with a built-up chamber but a kist, covered by a low mound, which is frequently supported by a retaining wall of small stones forming an inner circle, but of course without any passage leading to the interior. The distinguishing feature of the Aberdeen type is, however, what is locally called the “altar-stone,” although it was not and never could have been an altar, a large stone standing on its longest edge between the two tallest pillars of the outer circle, filling up the whole space between them, and frequently kept in position by two small stones in front and two behind it. It is generally at the south of the outer circle, or slightly east of south, the highest stones being next to it, and the others gradually diminishing in size to the north. There are circles of other kinds in the country round Aberdeen—as for instance at Fordoun,

¹ *Proc. Soc. Antiq. Scot.*, vol. vii, p. 293, Rhind on “Yarhouse, Wick, etc.”

² *Proc. Soc. Antiq. Scot.*, vol. xvi, p. 477, A. J. Beaton, “Antiquities of Black Isle Ross-shire,” 14 June, 1882.

³ *Ibid.*, vol. xxi, p. 283, Rev. C. L. Acland, M.A., 9 May, 1887.

⁴ *Journal of British Archeological Association*, C. W. Dymond, C.E., 5th March, 1879. *Journ. Anthropol. Inst.*, vol. xv, p. 165, A. L. Lewis, 28th April, 1885.

 STRICHEN. (<i>Rev. J. Peter.</i>)	 MIDMAR. (<i>Col. Forbes Leslie.</i>)	 ARDLAIR. (<i>Col. Forbes Leslie.</i>)	 SINHINNY. (<i>Col. Forbes Leslie.</i>)
 LOUDON WOOD. (<i>Rev. J. Peter.</i>)	 "KIRK O' TOUGH." (<i>C. MacLagan.</i>)	 "KIRK O' KEIG." (<i>C. MacLagan.</i>)	 AUORTHIES. (<i>C. MacLagan.</i>) INVERURY
 AIKEY BRAE. (<i>Rev. J. Peter.</i>)	 AUORTHIES. (<i>A. L. Lewis.</i>) ABERDEEN.	 DYCE. (<i>A. L. Lewis.</i>)	 OLD RAYNE. (<i>C. MacLagan.</i>)

SKETCHES AND PLANS OF
 "ALTAR STONES" IN SCOTCH CIRCLES
 (ABERDEEN DISTRICT.)

and at Broomend of Crichtie—but all inquiries that I have made have failed to discover a circle of this type anywhere except in this district.

I have a list of more than thirty circles in the Aberdeen district, but I think there may have been many more.¹ Twenty-six have this peculiar “altar-stone,” and some of the others may have had it, but are too imperfect to enable anyone to say whether it formerly existed in them or not. I think, therefore, I may now say that I have fully established the proposition with which I began this paper, that the Scotch circles may be divided into different types, each of which has its centre in a different locality, namely:—1. The Western Scottish type, consisting of a rather irregular single ring or sometimes of two concentric rings. 2. The Inverness type, consisting of a more regular ring of better-shaped stones, surrounding a tumulus with a retaining wall, containing a built-up chamber and passage leading to it, or a kist without a passage. 3. The Aberdeen type, consisting of a similar ring with the addition of a so-called “altar-stone,” and usually having traces of a tumulus and kist in the middle. There is much reason to believe that most of the circles of these three types were used for burial, if, indeed, that were not their chief purpose, but, as there is evidence that all have not been so used, it cannot have been their only purpose; and, with regard to the Aberdeen circles in particular, we have the statement of Dr. Garden, made to Aubrey so long ago as 1692, that “the general tradition throughout this kingdom concerning this kind of monuments is that they were places of worship and sacrifice in heathen times.”² In addition to these three types of circles, there are what I have ventured to call the sun and star circles, with their alignments of stones, and apparently proportioned measurements; and other classes may perhaps yet be distinguished by a closer examination in different parts of the country.

This division of the circles into classes and localities is, it appears to me, an important point for consideration in any attempt to unravel the early history of the Scottish people. From Inverness to Aberdeen is only about 70 miles in a straight line, and the distance between the points nearest to one another of the districts of which they are the centres is much less, but there must either have been a separate tribal origin or a considerable cessation of intercourse between two branches of the same tribe for two such different types of circles to

¹ Colonel Forbes Leslie, *Early Races of Scotland. Archaeologia Scotica*, vol. ii, p. 324, J. Skene, “Account of Hill-Fort of Barmekyne, etc.” (1822).

Proc. Soc. Antiq. Scot.:—Vol. i, p. 141 (14th February, 1853), John Stuart on “Various Stone Circles in Aberdeenshire”; vol. xiv, p. 295 (1879), Dr. Angus Smith on “Stone Circles in Durris, Kincardineshire”; vol. v, p. 130 (1863), A. Thomson on “Four Circles of Standing Stones in Parish of Banchory Devenick”; vol. xviii, p. 319 (1884), C. E. Dalrymple on “Stone Circle at Crichtie”; vol. xix, p. 370 (1885), Rev. J. Peter on “Stone Circles in Parish of Old Deer”; vol. ii, p. 466 (1857), A. Jervise on “Sculptured Stone monuments, etc., at Fordoun, Mearns, etc.” *Archæologia*, vol. xxii, p. 198 (1827), J. Logan on “Several Circles of Stones in Scotland, etc.”; p. 410 (Appendix, 1822), J. Logan on “Circles at Dyce and Leuchars.” *Proc. Soc. Antiq. Lond.*, May, 1885, vol. x, p. 305 (Rev. W. C. Lukis).

² *Archæologia*, vol. i, p. 312.

have been developed in localities so near to one another. The apparent existence of some specimens of the Inverness type outside its immediate district, but in communication with it by water, suggests also that the greater facilities offered by the inland lakes for the use of slight and fragile vessels may have developed a seafaring capacity among the early men round Inverness, which was not so readily acquired in the rougher and more open seas on the Aberdeen coast.

So far as Dr. Beddoe's statistics go, the Inverness people of a generation ago seemed to be somewhat taller and heavier than those of Aberdeen, but he does not appear to draw any particular distinction between them.¹ He says, however (p. 540), "I believe it would accord with what has been observed in other mountainous and sequestered regions, such as Switzerland and Styria, if there were considerable variations in average stature between one neighbouring valley or district and another, and from general observation I think such is the case, and I regret I have been unable to procure returns from some other portions of the Highlands which might have brought out the fact."

I should like in conclusion to say a few words on the possibility of a classification of the English circles. Perhaps the materials for such a classification do not exist. The number of circles in England is much smaller, and the area over which they are scattered is much larger, than in Scotland. It is only in Cumberland, Devonshire, and Cornwall that there can be said to be groups of them, and nearly every circle in those groups has an individuality of its own. They vary greatly in diameter and in the sizes of the stones composing them, but they are all single rings, except the Gunnerkeld circle, though some have one or more stones inside them. The Cumberland circles have a more clearly defined entrance than those of southern England. Avebury and Arborlowe may be said to form a separate type, since they are shut in by high earthen embankments, and had in the middle a "cove," consisting of three stones, forming three sides of a square, with an open side to the north-east; Mayburgh, in Westmorland, may also have belonged to this type, but there is only one stone left inside the bank, so we cannot tell. Apparent references to the sun and stars are more numerous in England than in Scotland, where, however, more may perhaps yet be found if they are looked for.

Finally, we have in England Stonehenge, which may be said to form a class by itself, for there is nothing quite like it anywhere else. Its concentric double rings and double horse-shoes, and its so-called "altar-stone," recall the construction of the Inverness and Aberdeen types, though with great differences of form and still greater of purpose; and its north-easterly bearing and outlying stones connect it with, and indeed give the key to, other "sun and star" circles, while the shaping of the stones, and the tenons and mortices which hold the transverse stones in position, and the transverse stones themselves, give it a special character and one perhaps more modern than belongs to any of the other circles. It seems, indeed,

¹ *Memoirs of the Anthropological Society of London*, vol. iii, pp. 404 and 408, Dr. J. Beddoe on "The Stature and Bulk of Man in the British Isles."

as though it might, in its present form, have been the work of some later representatives of the early culture, who desired to unite in it the characteristics of various districts, and so to make it a generally representative monument; and the occasion for the erection of such a monument may be more or less correctly described in the tradition to which Geoffry of Monmouth and others have given a wide currency. This, however, is an unfashionable view, and is at the best extremely speculative.

APPENDIX A (INVERNESS).

The following circles in the country round Inverness are or were of the construction which I have called the Inverness type:—Tordarroch near Farr, Tordarroch near Crofteroy, Gask near Farr, Midlaig, Daviot (fig. 6), Culdoich of Clava, Milltown of Clava (2), Balnuaran of Clava (3), Little Urchany (*a*); all these

FIG. 6.

Ground-plan of Daviot Circle, lent by the Society of Antiquaries of Scotland, from the illustrations to Mr. Fraser's "Descriptive Notes on the Stone Circles of Strathnairn and the Neighbourhood of Inverness."

are in Strathnairn. Kinchyle of Dores near Scanipport, Inches (Leys) near Inverness, Newtown of Petty; these are between the Nairn and Ness. Carn Inernan in Black Isle, Corrimony in Glen Urquhart, Culbirnie near Beaully, Bruiach (Beaufort near Beaully), Alvie. Twenty in all.

The following are known to have existed, and there are still remains of some of them, but not in such preservation as to enable the details of construction to be made out:—Duhallow of Aberarder, Mains of Clava (2), Culchuinneig (2), Cantraybruich (2), Dalgrambich of Cantry, Balaurit of Cawdor, Little Urehany, (b) Auldearn, Mains of Moyness, Golford of Moyness, Aldourie near Loch Ness, Torbrech, Culduthel, Stonyfield of Raigmore, Allanfearn, Culloden Tile Works, east end of Cullearine of Culloden, Mains of Dalcross, Balnabual of Dalcross, Flemington (2). Twenty-four in all.

There were also some small ordinary circles not of the special Inverness type, as, for instance, two at Milltown of Clava.

APPENDIX B (ABERDEEN).

The following circles in the country round Aberdeen have or have had the special stone locally called the “altar-stone,” which differentiates the circles of the Aberdeen type from all others:—Old Keig, Balquhain, Balgorkar, Sinhinny. Auquorthies near Inverury, Newark, Lonmay, Chapel of Garioch, Lieth (Mill Hill), Auld Rayne, Midmar, Ardlair, Kirk o’ Tough, Ardoyne, Dyce, Auchorthies near Aberdeen (a), Fiddes Hill, Strichen, Loudon Wood, Aikey Brae, Barnekyne of Echt, Rees o’ Kleen, Garrol, Esslie, Malloch West, Cairnie, Monymusk. Twenty-six in all.

The following are so incomplete that it is uncertain whether they possessed an “altar-stone” or not:—Badentoy, Auchorthies near Aberdeen (b), Glossel, Cairn-fauld.

The following do not appear to have had an “altar-stone”:—Hersch—Fordoun, Kingcausie, Broomend of Crichtie, White Cow Wood, Auchterless, Leuchar—Skene.

It is probable that additions might be made to all these lists.

DISCUSSION.

Dr. BEDDOE contributes the following notes on the subject of this paper:—

There are of course considerable anthropological differences between the North-east and the West of Scotland, but how far these can be carried back it is difficult to say. The modern Aberdonians are to a large extent the descendants of immigrants from England, Norway, Denmark, Holland, etc., who streamed in, especially, during the eleventh, twelfth, and thirteenth centuries. Much the same is the case with the district of Moray (Elginshire and the lower parts of Nairnshire and Banffshire; about Inverness, however, the blood is pretty purely Highland or Gaelic).

The Eastern Highlanders may be taken, with little doubt, to be descended from the Picts, whoever the Picts were. I believe them to have been mainly what we call nowadays Iberian, but there may have been other, perhaps Finnic, elements in them. The Argyllshire people since about 500 A.D. are probably in the main descended from Dalriadic-Scoto-Irish colonists; but what were their predecessors, unless they too were Pictish? I know not. Everywhere near the coasts there are indications of a Norwegian cross, and this applies strongly to the north as well as the west. Lewis, Harris, Skye, Colonsay, Isla, have much Norse blood.

There is a type among the Gaels described by Hector Maclean and Sir Arthur Mitchell which is widely distributed, which they, I think, call Finnish, but I do not think that a good name for it. Short stature, dark complexion, large head, low intelligence, it is probably of very ancient date.

I think there is a really Finn-like type about Barvas, near Carloway.